DOCUMENT RESUME

ED 340 567 SE 050 306

TITLE Using the Newspaper To Reinforce Mathematics Skills. Minimum Student Performance Standards for Florida Schools. Grade 11.
INSTITUTION Palm Beach Newspapers, Inc., West Palm Beach, FL.
SPONS AGENCY Florida Newspaper in Education Coordinators, Inc., Jacksonville.
PUB DATE 86
NOTE 50p.; Some graphics may not reproduce well.
AVAILABLE FROM The Palm Beach Post, Educational Services Department, P.O. Box 24700, West Palm Beach, FL 33416 ($3.00).
PUB TYPE Guides - Classroom Use - Teaching Guides (For Teacher) (052)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Grade 11; Mathematical Applications; *Mathematical Concepts; Mathematics; Mathematics Achievement; Mathematics Instruction; *Mathematics Materials; *Mathematics Skills; *Minimum Competencies; *Newspapers; Secondary Education; *Secondary School Mathematics
IDENTIFIERS *Florida Minimum Student Performance Standards

ABSTRACT

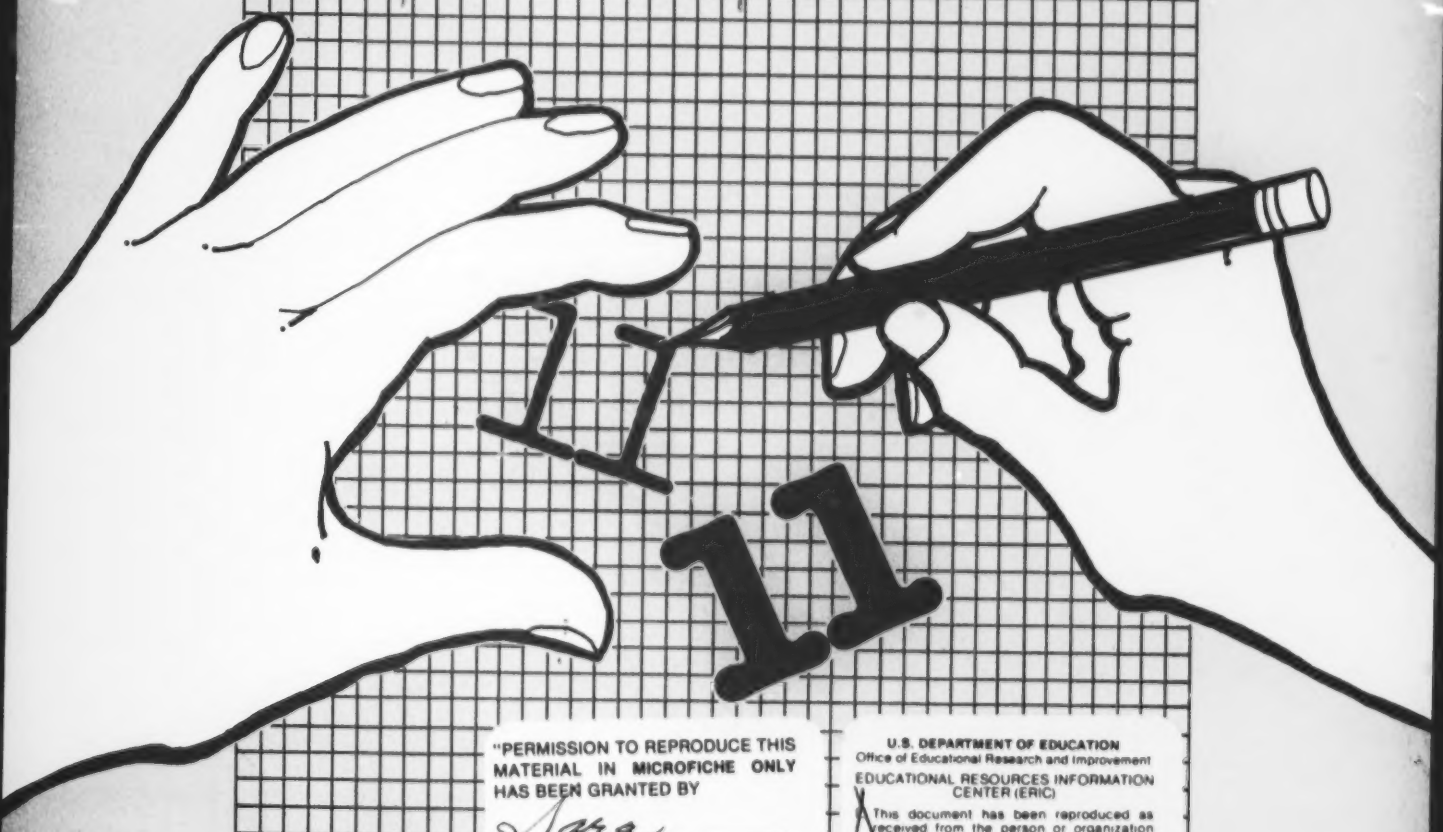
The newspaper is a familiar tool to many teachers. This book explores another use for the newspaper in the classroom. As an aid in the teaching and remediating of basic mathematics skills, the newspaper adds variety to classroom instruction. The suggested newspaper activities and teaching ideas presented here are specifically designed to reinforce the Minimum Student Performance Standards identified by the Florida Department of Education for grade eleven. Activities included are: rounding of numbers; putting numbers in order; fractions; operation of whole numbers and decimals; percentage; measurement; estimation; and interpreting graphs, tables and maps. The corresponding skill number, needed materials, newspaper activities for skill reinforcement, and an activity sheet are provided for each activity. A list of resource materials is included. (YP)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED340567

USING THE NEWSPAPER TO REINFORCE

MATHEMATICS SKILLS



"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sara Hoffner

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

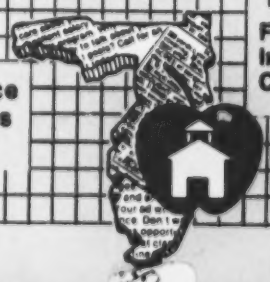
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

Minimum Student Performance Standards for Florida Schools Grade 11



Florida Newspaper in Education Coordinators, Inc.

SE 050 306

BEST COPY AVAILABLE

USING THE NEWSPAPER TO REINFORCE

MATHEMATICS SKILLS

Minimum Student Performance Standards for Florida Schools
Grade 11

Consultants

Second Edition
Margaret Dampf

First Edition
Lynnette Booth
Andrew Conda

Cover Design
Ava Maria Mercedes

Illustrations
Joy MacKenzie

Published by
Palm Beach Newspapers Inc.
West Palm Beach, Florida

Copyright, ©1981, 1986, Florida Newspaper In Education Coordinators Inc. All rights reserved. Printed in the United States of America.

Permission is granted for reproduction of this material for educational purposes by authorized personnel.

Table of Contents

To the Teacher v

Rounding Numbers 1
Putting Numbers in Order 3
Equivalent Fractions 5
Multiplying Whole Numbers 7
Dividing Whole Numbers 8
Adding, Subtracting and Multiplying Fractions 9
Multiplying and Dividing Decimals 12
Finding Percentage 14
Measurement 16
Estimating Solutions 19
Solving Real-World Problems with Whole Numbers 20
Solving Real-World Problems with Fractions 23
Solving Money Problems 25
Solving Measurement Problems 31
Interpreting Graphs, Tables and Maps 38

Sources 41

Consultants

Margaret Dampf is employed by the Martin County School System and holds a B.A. degree and a M.A. degree in Education from Florida Atlantic University.

Lynnette Booth is employed by the Orange County School System and holds a B.S. degree in Math Education from the University of Central Florida.

Andrew Conda is employed by the Hillsborough County School System and holds a B.S. degree in Elementary Education from Tampa University and a M.A. in Elementary Education from the University of South Florida.

Ava Maria Mercedes is an alumni of the Ontario College of Art and George Brown College. She is employed as a News Illustrator by Palm Beach Newspapers Inc.

Joy MacKenzie received her training at instructional art schools in Minneapolis, Minnesota and is employed as an artist by Fort Lauderdale News/Sun-Sentinel.

Introduction

The newspaper is a familiar tool to many teachers. This book explores another use of the newspaper in the classroom. As an aid in the teaching and remediating of basic mathematics skills, the newspaper adds variety to classroom instruction. The suggested newspaper activities and teaching ideas presented here are specifically designed to reinforce the Minimum Student Performance Standards identified by the Florida Department of Education for grade eleven.

With the growing concern about basic skills, Florida Newspaper In Education Coordinators, Inc. realizes the need for current, relevant teaching materials. We have published this book to provide educators with another resource to reinforce the minimum student performance standards required by the Florida State Department of Education.

We encourage teachers to reproduce the Student Activity Sheets for classroom use.

For further information on Newspaper In Education programs contact: **FNIEC, Inc., P.O. Box 1949-F, Jacksonville, Florida, 32231.**

Message to the Teacher

Many teachers have taught a unit on the use of the newspaper and its components. This book approaches the use of the newspaper from another view. Organized by state standards, the suggested activities directly address the mathematics skills through the use of the newspaper. Ideally, students' skill proficiency and familiarity with the newspaper are increased simultaneously.

For each math skill or set of skills, sample teaching ideas are given. Where needed the student activity sheet follows the skill sheet. Each activity sheet is coded in the upper right hand corner with the standard, skill and grade designation.

Some of the suggested activities require the student to answer questions while searching his newspaper. Others require the teacher to select various articles and advertisements for student use. Items needed for the activities are listed under the Materials Needed section of the skill sheet. An attempt was made to strike a balance between those activities for which the student works in the newspaper and those for which isolated articles and advertisements are used.

Grade 11
Minimum Performance Standard B
Skill #16, 17

Standard B

The student will round numbers.

Skill #16

Round a number less than 100 with no more than three decimal places to any designated place.

Skill #17

Round a mixed number with a whole number component less than 100 to the nearest whole.

Materials Needed

Newspapers
Student activity sheet B-17, Grade 11
Scissors
Glue

Newspaper Activities for Skill Reinforcement

1. Using the display advertisements in the newspaper, record 20 decimals less than 100 and round each to the nearest tenth; then the nearest one and then round each to the nearest ten.

2. Have students complete student activity sheet B-17, Grade 11.

3. Using the business section of the newspaper, find two mixed number closing stock prices for each letter of the alphabet. Round each stock price to the nearest whole number.

STUDENT ACTIVITY SHEET

Rounding Mixed and Decimal Numbers

Directions:

In sets 1 - 5, round each sale price to the nearest whole number. In each set are the rounded numbers the same? If so, find and clip an ad from the newspaper with a price that can be rounded to a dollar more or a dollar less than those given. If the two rounded numbers in the set are different, find and clip an ad from the newspaper, with a price, that will round to match one of the numbers in the set.

1. **CHRISTIAN BROS.**
Chateau LaSalle, 750 ml. (25 oz.)
2.79

FAMOUS MAKER T-SHIRTS
IF PERFECT $6-$8
Several styles to choose from
2.69

2. **J.G.DURAND 7-PC. DIAMANT FRENCH GLASS SALAD SET**
REG. 12.99
7.88
Specially tempered glass for durability. Consists of one 9" bowl and six 5" bowls.

J.G. DURAND 6-PC DIAMANT ELEGANT FRENCH STEMWARE
REG. 10.99
$6.99
French glass stemware. Specially tempered glass for durability. Choose from 10¼ goblet, wine and champagne styles.

3. **SABRE SAW BLADE KIT**
9 pc. set includes blades for wood, metal and plastic
REG. $4.99
3.49

SAVE 18% DUPONT RAIN DANCE
Liquid or paste wax. Guaranteed to last longer. Keeps on beading and shining, rain after rain.
REG. 4.79
3.88 EA.

4. **SAVE $3 CONTEMPORARY CRATES**
Multi-purpose. For bedroom living room. Stackable. 17x12x9"
REG. 7.99
4.99

ADULT LIFE JACKET
Kapok filled. U.S. Coast Guard approved. #560103
REG. 5.66
4.38

5. **YOUR CHOICE! DANISH COOKIES**
Butter cookies; 1 lb. tin can
1.99

FAMOUS MAKER SOCKS
PRE-TICKETED
Great selection of popular styles
2.49

Standard C

The student will put numbers in order.

Skill #24

Put in order three whole numbers less than 10 million.

Materials Needed

Newspapers
Student activity sheet C-24, Grade 11
Scissors
Glue
Index cards

Newspaper Activities for Skill Reinforcement

1. Using student activity sheet C-24, Grade 11, have students select from the newspaper twelve numbers less than 100,000. Group the numbers in sets of three and assign ordinal numbers to each, so that they are arranged from smallest to largest.

2. Direct students to find ten different items of the same type (cars, boats, houses, motorcycles, etc.) with their prices attached. The cost of the items is to be less than $100,000. Put the cost of the items in order from smallest to largest and then identify their location with the proper ordinal name.

STUDENT ACTIVITY SHEET

Ordering of Whole Numbers

Directions:

Assign the ordinal numbers, first (1st), second (2nd) and third (3rd) to each of the following sets of home prices. Let the smallest be 1st and the largest be 3rd. When finished make up your own activity cards on ordering by cutting out ten items with whole number prices under $100,000. Paste the ads on index cards and then put the cards in order from smallest to largest.

1.

GO FOR IT...LOW $30's	**HANDYMAN SPECIAL**	**MUST SELL**
2 bdrm condo, balcony, private storage rm, clubhouse in wooded setting. Pool, tennis, near golf course, shopping. E-W Exp., asking $34,900. 282-0200.	Bring the paint, hammer, nails & lots of imagination. Great possibili.y for a duplex. House rented now at $35,000. 282-0200.	Almost new double wide 2 bdrm 2 bath home with central air. Carpet, beautiful large kitchen & dining room. Large lot with utility shed. $31,800. 896-5500.
2nd	3rd	1st

2.

3.

4.

5.

Grade 11
Minimum Performance Standard D
Skill #32, 33, 34

Standard D

The student will determine equivalent forms of fractions, decimals, and percents.

Skill #32

Identify an improper fraction that is equivalent to a mixed number less than 100.

Skill #33

Identify a mixed number less than 100 that is equivalent to an improper fraction.

Skill #33

Identify a decimal or percent that is equivalent to a proper fraction having a denominator of 2, 3, 4, 5, 20, 25, 50, or 1,000.

Materials Needed

Newspapers
Student activity sheet D-32,33,34, Grade 11

Newspaper Activities for Skill Reinforcement

1. Have the students complete student activity sheet D-32,33,34 Grade 11.

2. Using the business section of the newspaper, find 10 stock prices that are mixed numbers and make a list of the stock names and their prices.

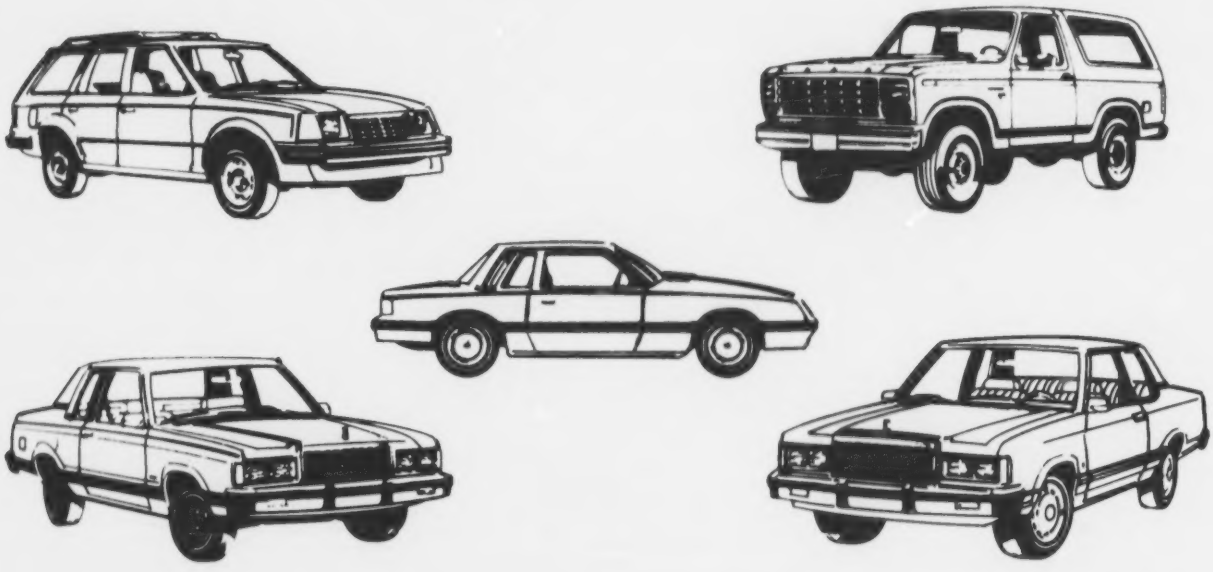
3. Find 20 advertisers in the newspaper that use decimal or percents that are equivalent to a proper fraction having a denominator of 2, 3, 4, 5, 20, 25, 50, 1,000. **Example**: 9.75 = 9-75/100 = 9-3/4

STUDENT ACTIVITY SHEET

Equivalent Numbers

Directions:

Refer to the set of transportation vehicles below to determine what portion of the entire set falls into each of the categories. When you have determined the correct fraction, then change each fraction into the equivalent decimal and percent form. Now collect another set of three to ten objects from the newspaper and prepare another activity sheet similar to this one.



	CARS	TRUCKS	2-DOOR	4-DOOR	4-WHEELS
FRACTION					
DECIMAL					
PERCENT					

Standard G

The student will multiply whole numbers.

Skill #56

Multiply two 3-digit numbers.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Have students find ads in the classified section of the newspaper for five cars with the miles per gallon (MPG) listed. Assume that each gas tank holds twelve gallons and compute the distance each car can travel on a tank of gas. Then, repeat the activity for a car with a twenty-five gallon tank and compare the distances that each car may travel.

2. Have students act as purchasing agents for their school and find the price of each of the following in the newspaper:

   teacher desk
   electric typewriter
   dining room table and four chairs

   Using the prices they have found in the newspaper, have students calculate the cost for 103 desks, 245 typewriters and 185 dining room tables and chairs.

Grade 11
Minimum Performance Standard H
Skill #62

Standard H

The student will divide whole numbers.

Skill #62

Divide a 5-digit number by a 2-digit number.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Using the advertisements in the newspaper, find the average (whole number) price of a dozen motorcycles, twenty-five stereos, seventeen pianos.

2. Using the help wanted section of the classified ads that list the annual salary, compute the following for three different jobs:

   hourly wage (40 hours per week)
   weekly wage (5 days per week)
   monthly wage

3. Direct students to count the total number of words in 1 or 2 paragraphs of any article on the front page of the newspaper. Then, have them compute the average words per paragraph, per article, and per page.

Standard I

The student will add, subtract, and multiply fractions.

Skill #69

Add two mixed numbers less than 100, with denominators of 2, 3, 4, 5, 6, 8, or 10.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Using the advertisements in the business section of the newspaper, find the cost of a first mortgage and a second mortgage. Add the two costs and determine the total interest.

2. Repeat this activity for each different percentage rate of first and second mortgages and determine which combination represents the least amount of interest.

3. Divide the class into groups and assign each a column of the stock market listings in the newspaper. Have each group add together the "change" shown for the listings. Find the total of all columns. Do this weekly to reinforce this skill.

4. Clip several recipes from the food section of the newspaper that use some of the same ingredients. Instruct students to find the total amount of each common item in the recipes.

Grade 11
Minimum Performance Standard I
Skill #70, 71, 72

Standard I

The student will add, subtract, and multiply fractions.

Skill #70

Subtract a whole number and a mixed number with denominators of 2, 3, 4, 5, 6, 8, or 10.

Skill #71

Subtract two mixed numbers with denominators of 2, 3, 4, 5, 6, 8, or 10.

Skill #72

Multiply a whole number and a mixed number

Materials Needed

Newspapers
Scissors
Student activity sheet I-70, 71, Grade 11

Newspaper Activities for Skill Reinforcement

1. In the business section of the newspaper, have students find 20 stocks in the New York Stock Exchange listings with fractional highs and whole number closing prices. Subtract these numbers.

2. Have students locate 20 mixed numbers in the newspaper, group into pairs, and find the difference between each pair.

3. Have students complete student activity sheet I-70,71, Grade 11 by clipping several recipes from the newspaper containing the same ingredients and determining the differences in the amounts of particular items that are common to all.

4. Using the business section of the newspaper, choose 10 different stocks with fractional highs. Find the cost of each of these stocks if you buy the following numbers of shares:

    12 shares
    23 shares
    40 shares
    17 shares

STUDENT ACTIVITY SHEET

Subtracting Fractions

Directions:

Answer these questions using the recipes given below

1. How much more milk is needed for the whole wheat bread than for the French cherry pudding pie? _____
2. How much more white sugar is needed for the whole wheat bread compared to the Cinnamon Crunch Coffee Cake? _____
3. What is the total amount of butter needed for the coffee cake and bread? _____
4. What is the total amount of milk needed for the two pudding pies? _____
5. How much more whole wheat flour is needed for the bread than the all-purpose flour needed for the cinnamon cake? _____
6. What is the total amount of flour (both types) needed for the bread? _____
7. How much more milk is needed for the bread compared to the Praline Ice Cream Pudding Pie? _____
8. What is the total amount of milk needed for all three recipes? _____

Cinnamon Crunch Coffee Cake

1 1-lb loaf frozen white or sweet roll dough
¼ cup butter or margarine, softened
¼ cut brown sugar, firmly packed
¼ cup white sugar
¼ cup flour
½ tsp vanilla
¼ cup chopped walnuts or pecans
Cinnamon

Whole Wheat Bread

1 pkg active dry yeast
¼ cup very warm water (105 to 115F)
2 cups milk
⅓ cup sugar
¼ cup (½ stick) butter
1 tsp sale
1 egg beaten
2 cups whole wheat flour
3½ to 4 cups all-purpose flour
Melted butter
Coarse sale, if desired

French Cherry Pudding Pie

1½ cups cold milk
1 cup sour cream (½ pt)
¼ tsp almond extract
1 6-serving size pkg
vanilla or French vanilla flavor
instant pudding and pie filling

1 baked 9-inch Vanilla Wafer Crumb Crust*, cooled
1 21-oz. can cherry pie filling

Praline Ice Cream Pudding Pie

1 tbsp butter or margarine
2 tbsp light brown sugar
⅓ cup chopped pecans
1 lightly baked 9-inch pie shell
1½ cups cold milk
1 cup vanilla ice cream, softened (½ pt)
1 6-serving size pkg butter pecan flavor instant pudding and pie filling.

Grade 11
Minimum Performance Standard K
Skill #78, 79

Standard K

The student will multiply and divide decimals.

Skill #78

Multiply two numbers, each having no more than two decimal places.

Skill #79

Divide two numbers, each having no more than two decimals places.

Materials Needed

Newspapers
Student activity sheet K-79, Grade 11
Scissors
Glue

Newspaper Activities for Skill Reinforcement

1. Using the food section of the newspaper, find the price for each of the following:

   7 different canned vegtables
   1 pound of ground beef
   1 pound of fish
   1 pound of butter
   1 pound of chicken
   7 different fresh vegtables
   1 loaf of bread
   1 dozen eggs

   Plan a menu for a family of 4 for one week and determine the cost.

2. You have $62.30 to spend on a newspaper subscription. Go to the masthead of your newspaper, find the weekly carrier rate, and then determine how many weeks you may subscribe to the newspaper. Can you subscribe for the entire year? If not, how much more money would you need? **Note:** You may want to remind students that the masthead contains the publishing information and is usually found in the front section of the newspaper.

3. Have students find ads in the newspaper for multiple items at a single cost and determine the unit price using student activity sheet K-79, Grade 11.

STUDENT ACTIVITY SHEET

Dividing Decimal Numbers

Directions:
Find three food ads with multiple items at a single price and paste below. Now determine the unit price of each of the items by dividing the price by the numbers of units. Show your work beneath each ad.

1.

2. (GENERIC) 16 OZ. PKG. **2/89¢**

3. **5** 28-oz. BTLS. **$1**

4.

5.

6. **10** LB. BAG **$2.39**

Grade 11
Minimum Performance Standard L
Skill #80, 81

Standard L

The student will find percentages.

Skill #80

Find the percentage when given a whole number and a whole number percent less than 100.

Skill #81

Find the percentage when given a whole number with no more than two decimal places and a whole number percent less than 100.

Materials Needed

Newspapers
Student activity sheet L-81, Grade 11

Newspaper Activities for Skill Reinforcement

1. Find 10 items for your bedroom advertised in the newspaper. Then, find the price if you could receive a 30% discount on each item.

2. Use the newspaper to plan an airline trip. Find the cost of the airfare if you were to receive a 25% student discount rate. What is the savings over a full-fare rate?

3. Have students complete student activity sheet L-81, Grade 11. Then have them find three similar ads in the newspaper and determine the original price and percentage of discount for each.

4. Direct students to go through the ads in the newspaper and compute whether the percentage rates stated in the ads are correct.

5. Have students create an ad of their own using a newspaper ad as a model. The model ad should include discounted percentages as well as the regular and sale prices. The students will advertise five of their most valued possessions.

STUDENT ACTIVITY SHEET

Percentages

Directions:

Determine the original price and the percent of discount of each of the items below.

Star-Kist TUNA
CHUNK LIGHT WATER OR OIL
SAVE 12¢
6.5 ox CAN
79¢

1. _____
_____

OCEANSPRAY GRAPEFRUIT JUICE
SAVE 20¢
64 oz.
$1.39

2. _____
_____

3. _____
_____

RINSO DETERGENT
SAVE 80¢
76 oz. BOX
$1.99

4. _____
_____

SUNSHINE SALTINES
SAVE 20¢
16 oz. BOX
69¢

CONTADINA TOMATO SAUCE
SAVE 10¢
15 oz. CAN
39¢

5. _____
_____

CHUN KING
DIVIDER PACKS
PEPPER ORIENTAL, SHRIMP, CHICKEN OR BEEF
SAVE 36¢
42 oz.
$1.99

6. _____
_____

Grade 11
Minimum Performance Standard M
Skill #92, 93

Standard M

The student will measure time, temperature, distance, capacity, and mass/weight.

Skill #92

Determine length, width, or height by measuring objects to the nearest millimeter or 1/8-inch.

Skill #93

Estimate the length, width or height of an object in millimeters, centimeters, feet or inches.

Materials Needed

Newspapers
Rulers
Meter Sticks
Scissors
Glue
Student activity sheet M-93, Grade 11

Newspaper Activities for Skill Reinforcement

1. Measure the articles in the sports section of the newspaper by length and width. Measure in millimeters and in 1/8-inch increments. Divide the articles into three categories; high school teams, college teams, and professional teams. Using your measurements, determine which one received the most coverage.

2. Instruct students to go through the first section of the newspaper, estimate the length and width of each picture in millimeters and inches and then actually measure the pictures and determine how close their estimates were.

3. Have students complete student activity sheet M-93, Grade 11 by clipping pictures of items they can find at home and estimate the length, width and height in metric and standard measurements.

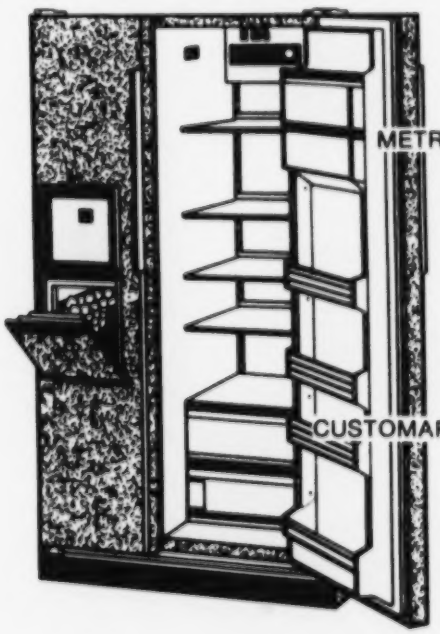
STUDENT ACTIVITY SHEET

Measuring and Estimating Distance.

Directions:

Below you will find an appliance found in most homes. You are to estimate the measurement of the item in both the metric and customary systems. Find two other items in the newspaper that you have in your home. Clip and paste them below and estimate their measurements also. Actually measure these items when you get home.

	EST. HEIGHT	EST. WIDTH	EST. DEPTH	ACTUAL HEIGHT	ACTUAL WIDTH	ACTUAL DEPTH
METRIC						
CUSTOMARY						
METRIC						
CUSTOMARY						
METRIC						
CUSTOMARY						



Grade 11
Minimum Performance Standard M
Skill #97

Standard M

The student will measure time, temperature, distance, capacity, and mass/weight.

Skill #97

Identify the freezing and boiling points of water, normal body temperature, and comfortable air temperature in Celsius or Fahrenheit.

Materials Needed

Newspapers
Display thermometer

Newspaper Activities for Skill Reinforcement

1. Using the weather section of the newspaper, record the temperatures for five U.S. cities and five Canadian cities for a 6 week period. Determine from your data the season's norm for this period and whether this is a cold or warm temperature for the area.

2. Have students make a thermometer drawing with Fahrenheit and Celsius scales. Then have them record the daily high temperatures for their city as found in the newspaper for a week.

3. Post a large display thermometer. Using the weather section of the newspaper, have one student call out the highs and lows of each city and another student set the thermometer at the correct reading. This activity can be done as a class game dividing the class into groups or as a time filler at the end of a class period.

Grade 11
Minimum Performance Standard P
Skill #105, 106, 107

Standard P

The student will estimate solutions by rounding.

Skill #105

Estimate, by first rounding to designated places, the solution to a real-world addition or subtraction problem.

Skill #106

Estimate, by first rounding each number to the nearest ten, the solution to a real-world multiplication problem involving two 2-digit numbers; and/or estimate, by first rounding each number to the nearest hundred, the solution to a real-world multiplication problem involving two 3-digit numbers.

Skill #107

Estimate, by first rounding each number to the nearest ten, the solution to a real-world division problem involving a 2-digit whole number divisor and a 3-digit whole number dividend.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Use the newspaper to find the cost of a pair of athletic shoes. Round this amount to the nearest dollar. Estimate the cost to buy these shoes for your school's basketball team and then your entire math class.

2. Using the business section of the newspaper, have students select five mutual funds. Round the price of each fund to the nearest ten and then estimate the price of 10, 22, 46, and 75 shares of each. Then, have students do the actual computation to check their estimates.

3. Have students clip movie advertisements and calculate the elapsed showing times. Then, have students determine which movie is the most economical by first rounding and estimating and then doing the actual computation.

4. Use the newspaper to find the cost of a new chair for your teacher. Round the cost to the nearest ten and estimate how much each student in your class will have to contribute for the chair.

Grade 11
Minimum Performance Standard Q
Skill #116

Standard Q

The student will solve real-world problems involving whole numbers.

Skill #116

Solve real-world problems involving averages of no more than ten numbers and no more than two distinct operations.

Materials Needed

Newspapers
Student activity sheet Q-116, Grade 11

Newspaper Activities for Skill Reinforcement

1. Have students shop for items in four different grocery ads and find an average cost.

2. Have students find the total number of points your school's team scored in its last 10 games and the average number of points per game. Repeat the same activity with a professional sports team on a weekly, monthly, or seasonal basis.

3. Have students complete student activity sheet Q-116, Grade 11. Then have them find articles in either the classified or sports section of the newspaper pertaining to salaries and compute the salary of several sports figures by dividing the average money made by a good player in baseball, football, golf, etc.

STUDENT ACTIVITY SHEET

Averages

Directions:

Refer to the article below to obtain the information necessary to answer each of the following questions.

1. What is the total amount being paid to Hubie Brown as settlement on his three year contract?

   _____

2. Assuming Mr. Brown does not work for the next three years, how much per year would this settlement money allow him for expenses?

   _____

3. Over the three-year period, what is the average per month? _____

4. What is the average per week? _____

5. Assuming a 40-hr. work week, what is the daily average and the hourly average?

   per day? _____

   per hour? _____

Hawks fire Hubie Brown

From Sentinel Star Services

Hubie Brown

Gearon said the board "unanimously voted to relieve Hubie Brown of his coaching duties effective immediately."

Brown had only three games to go in his fifth season as Atlanta coach. His 1979-80 team, which posted a 50-32 record, won the NBA Central Division. But this year's team, riddled with injuries - especially to its tallest players - was only 31-48 going into Thursday night's home game against Indiana and in fourth place, 26½ games behind division-leading Milwaukee.

Assistant coaches Michael Fratello and Brendan Suhr will handle the coaching duties for the final three games and the search for a new head coach will begin immediately.

Despite the sudden unemployment, Brown, 47, reportedly will receive $420,000 in cash and $270,000 in deferred money as settlement for the three years remaining on his contract.

BEST COPY AVAILABLE

Grade 11
Minimum Performance Standard Q
Skill #117

Standard Q

The student will solve real-world problems involving whole numbers.

Skill #117

Solve real-world problems involving one or two distinct whole number operations.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Ask students to plan for their future by investing $10,000 in the stock market. Have them use the business section of the newspaper to select the stocks they wish to purchase and keep track of their buying and selling for six weeks. At the end of the six-week period, have students determine if they made a profit or loss; and how much.

2. Have students research the newspaper for other investment alternatives for their $10,000 and calculate the rate of return for each of these types of investments. Then, have them compare these forms of investments to their stock market results and discuss the advantages and disadvantages to each.

Grade 11
Minimum Performance Standard R
Skill #120

Standard R

The student will solve real-world problems involving fractions, decimals, and percents.

Skill #120

Solve real-world problems involving addition or subtraction of proper fractions with unlike denominators of 2, 3, 4, 5, 6, 8, or 10.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Assuming that a full page advertisement in the newspaper costs $2000, have students determine the approximate cost of ten advertisements of different sizes throughout the newspaper.

2. Find ads from banks and savings and loan companies and record their interest rates in fractions. Determine the difference in the rates of interest for each institution and the difference in interest rates for various types of accounts.

3. Have students use the TV schedule in the newspaper and list all the programs they watched over a period of a week. Total the number of hours each night and determine the fractional part of the day that they spent watching television.

Grade 11
Minimum Performance Standard R
Skill #121

Standard R

The student will solve real-world problems involving fractions, decimals, and percents.

Skill #121

Solve real-world problems involving decimals or percents and one or two distinct operations.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Select five jobs from the classified ads and compute the net pay by subtracting 30% for federal withholding taxes.

2. Using the sports section of the newspaper, compute the percentage of wins and losses for your six favorite teams.

3. Have students find a used car in the classified section of the newspaper priced under $1000. Ask them to assume they are financing the car for a one-year period. Using bank ads compare the interest charged by different banks. Determine the effect of lengthening and shortening the finance time.

4. Have students find ads listing many different brands of an item. Which is the best buy and what are the percentages of savings?

5. Find a full page of advertisement with both regular and sale prices listed. Determine the total of sale prices and regular prices. Find the difference in the two and compute the total percentage of savings.

6. Find a restaurant advertisement which includes the price of a dinner. Determine the tip if you leave 15%. Then, order dinner for a family of seven, find the total cost of the meal, and then determine the tip if you leave 15%.

7. For one week have students count the number of local stories as opposed to world and national news reports in the newspaper. Determine the percentage of each type daily. Is there an overall weekly pattern?

Grade 11
Minimum Performance Standard S
Skill #130

Standard S

The student will solve money problems.

Skill #130

Determine equivalent amounts of up to one hundred dollars using coins and paper currency.

Materials Needed

Newspapers
Student activity sheet S-130, Grade 11
Play coins and currency
Scissors
Glue

Newspaper Activities for Skill Reinforcement

1. Have students complete student activity sheet S-130, Grade 11 by cutting and pasting seven amounts of money under $100 from the newspaper. Then, determine the least number of coins and bills needed to make the given amount of money. Finish by determining another way of making up the amount.

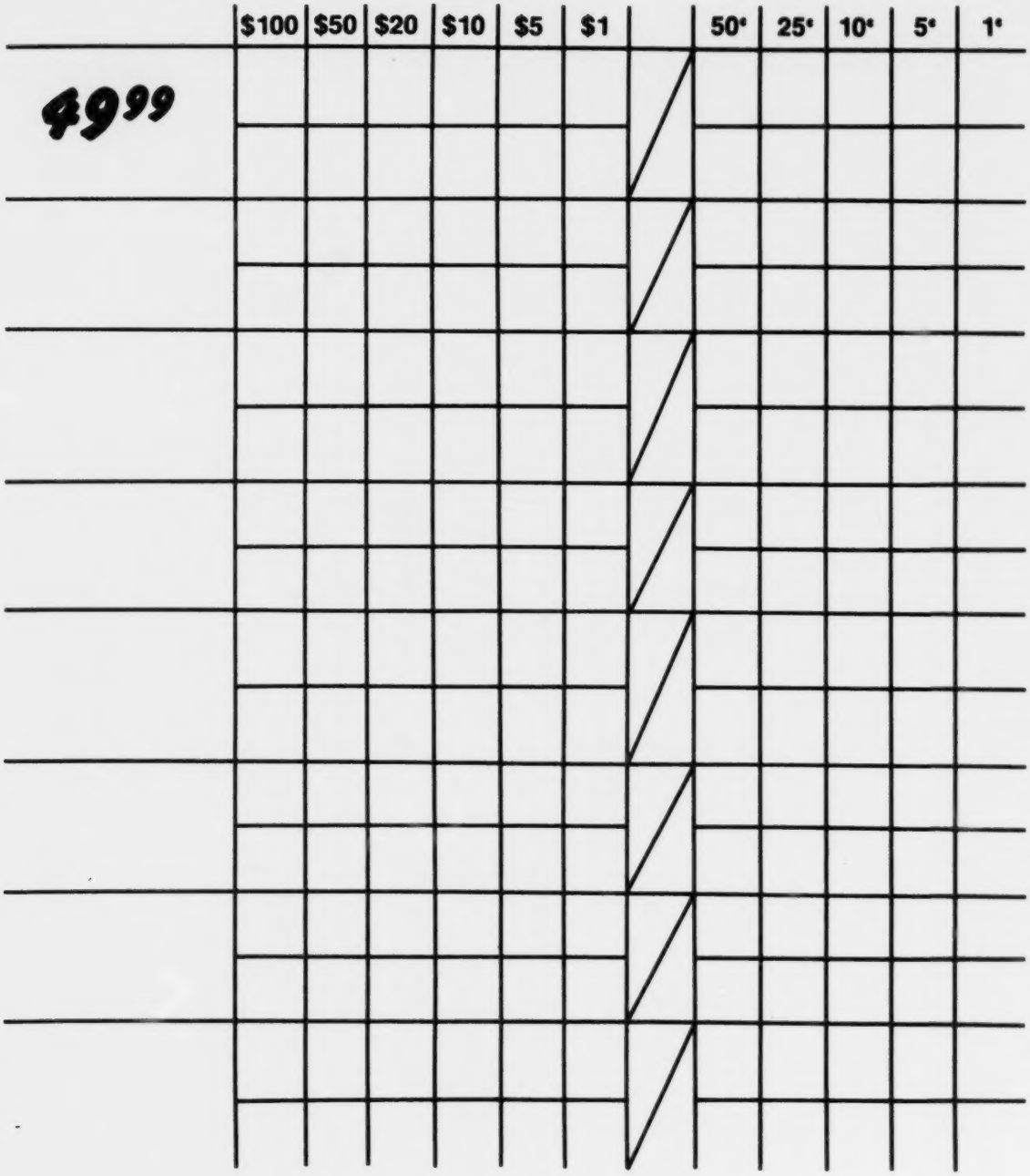
2. Using play bills and coins, have students in groups of two practice making change for items purchased from the advertisements or classified section of the newspaper.

STUDENT ACTIVITY SHEET

Equivalent Amounts of Money

Directions:

Clip out and paste seven more amounts of money under $100 from the newspaper. Then determine the least number of coins and bills needed to make the given amount of money. Finish by determining another way of making up the amount.



Standard S

The student will solve money problems.

Skill #131

Solve real-world problems involving comparison shopping.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. As a class, make a list of grocery items necessary for feeding a family of four for one day. Have students select different grocery ads from the newspaper and determine the cost of these items. How did the stores compare?

2. Some movie theatres have different admission prices for different times and days of the week. Use the entertainment section of the newspaper and determine the best time to go to a show at each movie house. What is the most that you can save?

3. Find ads for two or more companies that provide the same service. This could be for such services as fencing, plumbing, carpet cleaning, pool suppliers, builders, etc. Determine which company is the least expensive. Discuss whether or not cost should be the only or main factor when contracting out services.

Standard S

The student will solve money problems.

Skill #132

Solve real-world problems involving simple interest.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Use the advertisements in the newspaper to find the cost for all new appliances for your kitchen. Assume that you charge these purchases on your credit card at 1.5% interest per month. Determine the amount of interest on the total for one month.

2. Ask students to use the newspaper to shop for a new car. Have students put $1000 down on the advertised price and pay the balance in 48 equal payments. Assume the finance charge is 12% per year on the unpaid balance for four years, determine how much interest will be paid at the end of the four-year period.

3. Select several banking ads from the newspaper and have students compute the interest on a savings account opened with $465. After one year, which bank yields the greatest amount to its customers?

4. Using the financial pages, have students determine the best return on a $5000 investment, for a period of two years, for each of the following; certificate of deposit, regular savings accounts and United States savings bonds.

5. Have students shop the display ads for a bedroom set. Assume you pay $100 down and finance the remainder of the balance for one year at 18%. Determine the amount of interest paid at the end of the one year.

6. Direct students to select a new wardrobe from the retail clothing ads. If they charge the total amount to their credit card at 1.5% interest per month and pay only a minimum payment of $15 for the first two months, what will be the interest charged at the end of the third month?

Grade 11
Minimum Performance Standard S
Skill #133

Standard S

The student will solve money problems.

Skill #133

Solve real-world problems involving purchases and a rate of sales tax.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Have students find the sticker price of a new car in the automobile ads in the classified section of the newspaper. Assume that extras, title, transportation, and dealer preparation total $1000. Compute the total cost of the car including sales tax.

2. Have students find one advertisement displaying several items and their prices. Then, determine the total cost of all items including sales tax.

3. Direct students to find an advertisement of a restaurant with the prices of a dinner listed. Compute the cost of a dinner for two including sales tax.

4. Instruct students to find items in the newspaper with both regular and discounted sale prices listed. Have students compute the total price, including sales tax, of the item before and after sale. Find the total savings, discount, plus savings on sales tax.

Standard S

The student will solve money problems.

Skill #134

Solve real-world problems involving purchases and a rate of discount given in fraction or percent notation.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Make up your own ad for the students with following conditions: for purchases between $10 and $50 - 1/4 off; for purchases of $50.01 to $100 - 1/3 off; and for purchases from $100.01 and up - 1/2 off. For this activity have students use one of the full page ads in the newspaper and purchase all items that they would like to have.

2. Tell students that most stores allow an employee discount on purchases made and for this activity they are to assume the discount rate is 15%. Find a large department store ad and have students compute the savings and discounted price of each item in the ad.

3. Locate an ad comparing the prices of several airlines. Have students determine the percent of discount, as well as the amount of discount, they would save by going on the most economical airlines and/or the most economical class.

Grade 11
Minimum Performance Standard T
Skill #140

Standard T

The student will solve measurement problems.

Skill #140

Determine the elapsed time between two events stated in seconds, minutes, hours, days, weeks, months, or years.

Materials Needed

Newspapers
Student activity sheet T-140, Grade 11
Scissors
Glue

Newspaper Activities for Skill Reinforcement

1. Using student activity sheet T-140, Grade 11, have students clip several engagement announcements and determine the amount of time until the wedding.

2. Some papers list the calls received by local fire stations and police departments. Have students determine the elapsed time between each call.

3. Direct students to find a time schedule for flights from their city to different parts of the U.S. Have them find the time needed to fly to each destination. What is the time difference in a nonstop flight compared to one with a lay over?

4. Instruct students to clip ten movie ads from the newspaper and determine the elapsed time for each showing.

5. Have students find the daily horoscope section of the newspaper and determine the number of days assigned to each astrological sign.

STUDENT ACTIVITY SHEET

Elapsed Time

Directions:

Clip out six engagement announcements and paste below. Refer to those clippings and fill in the chart. Make sure you use the date the announcements appeared in the paper to determine the amount of days, weeks, and months until the wedding.

NAME	TOTAL DAYS	WKS. & DAYS	MN, WKS, DAYS

Grade 11
Minimum Performance Standard T
Skill #141

Standard T

The student will solve measurement problems.

Skill #141

Solve problems involving the perimeter or area of a rectangular region using metric or customary units.

Materials Needed

Newspapers
Student activity sheet T-141, Grade 11

Newspaper Activities for Skill Reinforcement

1. Have students complete student activity sheet T-141, Grade 11 and then have them locate the floor plan for a house in the home section of the newspaper. Direct students to find the perimeter and area of each room as well as the entire house. Direct students to then find the cost of covering the family room and kitchen with tile. Each tile is one foot square and tiles come 6 to a box. How may boxes of tile are needed? (Remember, you must buy whole boxes). Assume each box costs $5.28.

2. The bathrooms will also be tiled and you have a choice of using 6 x 6 or 8 x 8 tiles. Find the cost for these rooms.

3. Select an ad for wall-to-wall carpeting and have students figure the cost of carpeting the rest of the house. Remind students that carpeting is usually sold in square yards.

4. Measure the front page of the newspaper to find the length and width in both customary and metric units. Direct students to find both the perimeter and area.

5. Have students use fence advertisements and determine the cost of fencing a region 260 yards in perimeter.

6. Direct students to find an ad for drapery materials which lists prices. Assume four panels of 45-inch material will be needed to make curtains for a window. Determine how much material will be needed. Use the least expensive materials advertised and determine the cost, including tax. Then, determine the cost using the most expensive materials, including tax. Compare prices.

STUDENT ACTIVITY SHEET

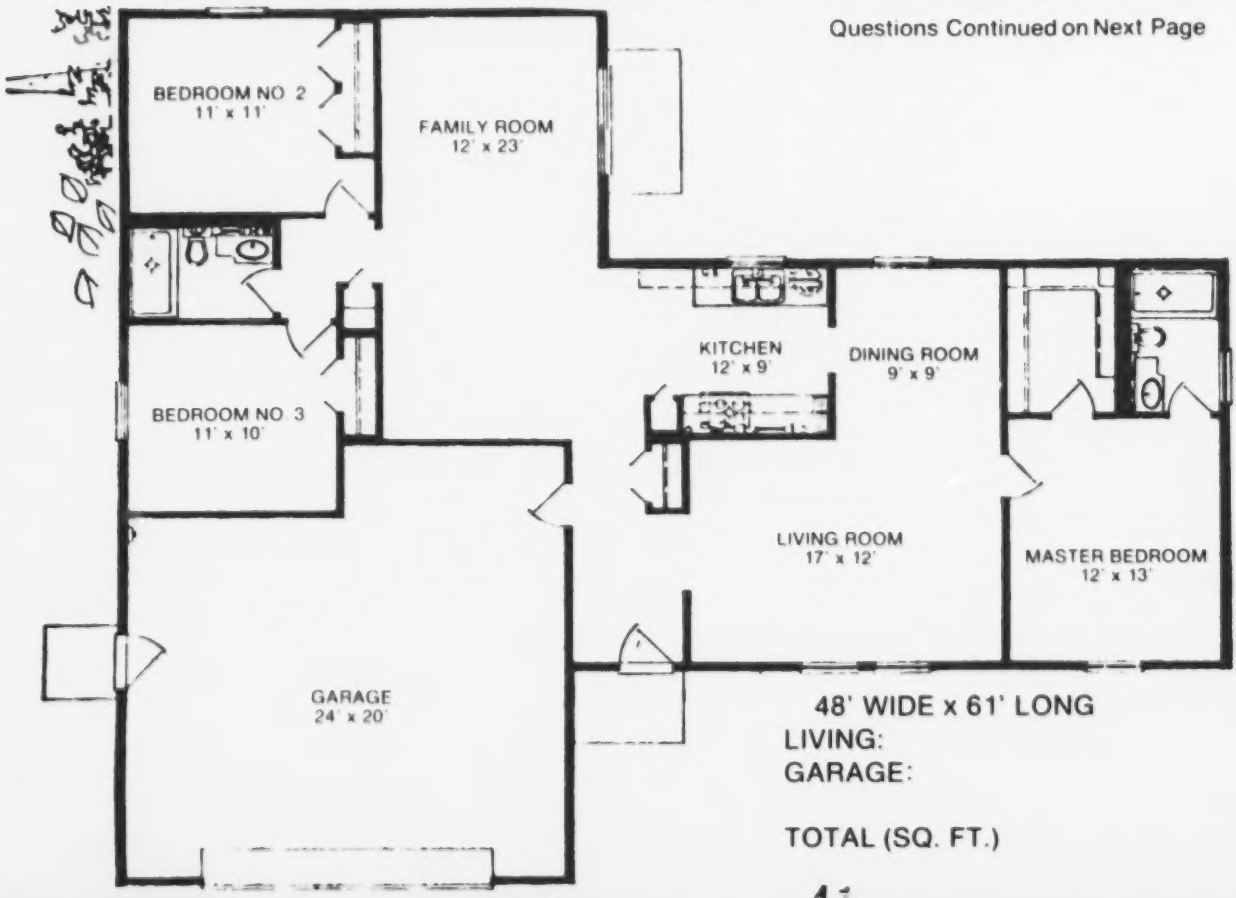
Perimeter and Area

Directions:

1. Find the area of the house including the garage (excluding porches). Remember area equals length x width. _____
2. Find the perimeter of the house (Remember perimeter is the distance around) _____
3. Find the perimeter and area of each of the following rooms:

ROOM	PERIMETER	AREA
MASTER BEDROOM		
LIVING ROOM		
DINING ROOM		
KITCHEN		
FAMILY ROOM		
BEDROOM #2		
BEDROOM #3		
GARAGE		

Questions Continued on Next Page



48' WIDE x 61' LONG

LIVING:

GARAGE:

TOTAL (SQ. FT.)

STUDENT ACTIVITY SHEET

Perimeter and Area

4. The total living area is the sum of the living area of each room. Add up the living space and see how this compares to the area of the house you found in problem # 1.

_____

5. How does it compare if you add on the garage area? _____

CARPET BUYING

6. Carpets are sold by the square yard. Since a yard is 3 feet, a square yard equals 9 square feet.

   To carpet a room, you can find the square yardage needed by dividing the room's area in square feet by nine.

   How many square yards of carpeting would be needed for the living room?

   _____

   Use the carpet ad at the right to determine the cost of carpeting the living room.

   _____

   How much would it cost to carpet all the rooms except the bathrooms and kitchen?

   _____

Follow-up Activity:

1. Find another floor plan in the newspaper and determine the area of each room as well as the total living area. Also, include the area of the garage and porch if applicable.

2. What do you think is the total square feet of your own home? _____

   Draw a sketch of your house and fill in the length and width of each room. Determine the total square feet. Was your guess correct?

3. Find a carpeting ad in the newspaper and determine the cost of carpeting your room.

Grade 11
Minimum Performance Standard T
Skill #143

Standard T

The student will solve measurement problems.

Skill #143

Solve problems involving capacity using units given in a table (milliliters, liters, teaspoons, tablespoons, cups, pints, quarts, gallons), conversion within the system.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Decide upon ingredients for a picnic, giving measurements to feed one person. For example, the weight of ground beef if each person ate two 4-ounce hamburgers and the the amount in ounces if each person drank three 8-ounce glasses of soft drink. Calculate the total amount necessary to feed the entire class. Have students use advertisements to determine the cost of the picnic. Have the students compete to see who is the most econcomical in buying food for the picnic.

2. Select an ad for a soft drink sold in six-packs. Have students determine how many quarts you would have if you purchased 8 six-packs. Remind students that 1 quart = 32 ounces.

3. Select a beverage recipe from the food section of the newspaper and have students determine how much of each ingredient you will need to buy if you halve, double, or triple the recipe.

Grade 11
Minimum Performance Standard T
Skill #144

Standard T

The student will solve measurement problems.

Skill #144

Solve problems involving mass/weight using units given in a table (milligrams, grams, kilograms, metric tons, ounces, pounds, tons), conversion within the system.

Materials Needed

Newspapers

Newspaper Activities for Skill Reinforcement

1. Have students select a grocery store ad from the food section of the newspaper and determine the cost of six 8-ounce servings of several different types of meat.

2. Have students locate the classified ad section entitled "Acreage." Select five ads which mention the number of acres for sale. Then, determine the number of tons of fertilizer needed if 40 orange trees are planted per acre and 5 pounds of fertilizer are used per tree.

3. Have students find five ads in the food section of the newpaper that list the net weight of the item such as cereal or crackers. Now compute the total weight of the item by the carton, if a carton contains three-dozen boxes.

Grade 11
Minimum Performance Standard U
Skill #149

Standard U

The student will solve interpret graphs, tables and maps.

Skill #149

Read and determine the relationships described by line graphs, circle graphs, or tables.

Materials Needed

Newspapers
Student activity sheet U-149, Grade 11
Scissors
Glue
Index cards

Newspaper Activities for Skill Reinforcement

1. Using the national weather map in the newspaper. Determine the following:

   What part of the nation is warmer?
   What part of the nation has wet weather or snow?
   How many different high and/or lows cover the nation?
   Towards what direction is the general weather pattern flowing?

2. Have students complete student activity sheet U-149, Grade 11 using the graphs on page 1 of the activity sheet to answer the questions on page 2 of the activity sheet.

3. Make up worksheets by using bar graphs and pictographs from the newspaper and have the student read, determine relationships and interpret data presented.

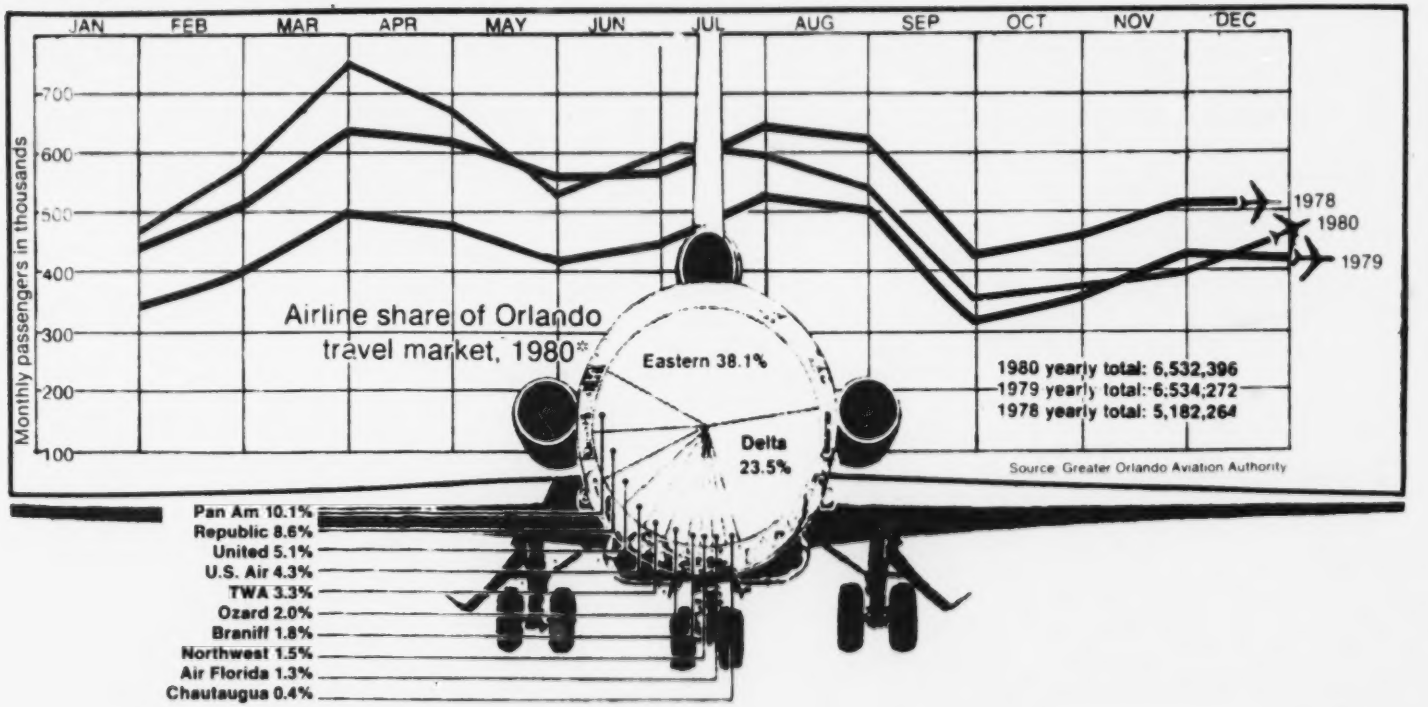
4. Have students search through the newspaper and clip and paste on index cards bar graphs and pictographs and make up questions illustrated by the graph. Students should answer their own questions to make the activity cards self checking when the cards are exchanged among the class.

Flight plans

Directions: Refer to the graphs below to answer the questions found on the following page. Find a graph in the newspaper, cut it out and paste it on a clean sheet of paper and make up questions about the graph for another student to answer. When finished exchange activities.

Continued on Next Page

Passenger arrival — departure trends Orlando International Airport



BEST COPY AVAILABLE

STUDENT ACTIVITY SHEET

Graphs - Page 2

Questions for "Flight plans":

1. Give the three leading airlines based on the Orlando travel market.

   1st _____ 2nd _____ 3rd _____

2. Which airlines has the least amount of Orlando air traffic? _____

3. Which months in 1980 show passenger travel below that of 1979?

   _____

4. During which months in 1980 was the number of passengers travelling below that of 1978?

   _____

5. How many passengers were there on September 1979? _____

6. What was the yearly total of air passengers in 1980? _____

7. What percent of those passengers were carried by Eastern Airlines? _____

8. Approximately how many passengers were carried by Eastern Airlines in 1980? _____

9. Approximately how many passengers were carried by Delta Airlines in 1979? _____

10. Approximately how many passengers were carried by Ozark Airlines in the middle of April, 1980? _____

11. What type of graph is used to illustrate the airlines' share of the Orlando travel market?

    _____

12. What type of graph is used to illustrate the monthly passenger rate for 1978, 1979, and 1980?

    _____

13. Give the total number of passengers for the years 1978 through 1980. _____

14. Give the total number of passengers for April 1978 through 1980. _____

15. Why do you suppose that April is a high passenger time and September is low?

    _____

Sources

Math Activities for Child Development - Enoch Dumas

Becoming Familiar with the Classifieds

Secondary Idea Starters for NIEC - Sentinel Star

NIE Newsletter - "Math Lessons for the Future" by Dave Schaeffer - Springhouse Jr. High - Call Chronicle Ed. Diane MacLean: Canadian Daily Newspaper Publishers Assoc. 250 Bloor St. East Toronto, Ontario M4W 1E7

Living Textbook Program - The Cleveland Plain Dealer

Math Learning Station Workshop - Gannett Rochester Newspaper, Rochester, NY 14614

Mathematics: NIE, The Bradenton Herald

Teaching Basic Math Skills with the Newspaper: Secondary Level

Orange County Comp. Math, Grade 10 Materials Kit

400 Group Games and Activities for Teaching Math by DeRoche and Bogenchild

Orlando Sentinel

Pine Hills Sun

* * *

Published and distributed by Palm Beach Newspapers Inc. for Florida Newspaper In Education Coordinators. Reorder Number 611-11